The High Impact Zone (HIZ) is the area surrounding the Doe Run Herculaneum facility where refined air dispersion modeling predicts the emissions from Doe Run Herculaneum alone would violate the 2010 1-Hour SO2 NAAQS. Illustrated below, the HIZ includes the area surrounding Doe Run Herculaneum and the violating Mott Street monitor. The Mott Street monitor is a site-specific monitor intended to capture the impacts of sulfur emissions originating from the Doe Run Herculaneum facility. The HIZ approach is based on this fact and evaluates Doe Run Herculaneum as the single-source contributor. The model was based on a simple evaluation of the Doe Run Herculaneum facility represented as a single stack using actual emissions data as reported by Doe Run in its annual Emissions Inventory Questionnaire (EIQ). Actual SO2 emissions data from calendar year 2010 corresponding to the highest actual SO2 emissions emitted at Doe Run Herculaneum was selected for analysis. The meteorological data set used to model Doe Run Herculaneum is an on-site data set. Any additional analysis of fugitive emissions was not conducted due to the lack of data from the facility on the characterization of sulfur emissions. Further analysis was deemed unnecessary for the purposes of determining the HIZ. Based on this simple model structure, the analysis shows that the violating monitor is located in the maximum area of impact associated directly with the largest SO2 source, Doe Run Herculaneum.